a slag with the same content of phosphoric acid from a material with low phosphorus content, as \vould be possible by complete decarburisation of the metal.
By lesser decarburisation, the hypothetical silicate slag (vide 40A) contains 34 to 35 par cent. S102- Now, then, if again the slag must have 17 per cent. P205, which corresponds to 45 per cent. Ca4P209, the slag will contain 45 per cent. Ca^PaOg, and 55 per cent, hypothetical silicate slag with the above 84 per cent. SiOa ; the entire slag will thus contain 55 per cent.xO*34=;18-7 per cent. Si02 against 17 per cent.
17 P205, and per unit Si02 there will be •=-—==0'91 unit Po05, for
0 91
the production of which ^TT—only 0*4 unit P will be needed
z*zy
to be present in the charge.
A further advantage of such mode of dephosphorisation is caused owing to then a less quantity of silica taking part in the proceedings. Firstly, the furnace structure is less attacked, since the action requires less time, nevertheless let no account be taken of this condition, and the silica supply, for safety's sake, be taken at the full amount previously reckoned. One then obtains :

Si02 entering into reaction.	P in cliarjjo requisite in consequence.
From furnace structure 0*45 per cent.	0*45 x 0'4 = 0*18 per cent. P
Prom 0-6 per cent. Si .	1*30 ,,
1-30 X 0-4 = 0-52 „ P	
Minimum total . . .	0*70 per cent. P

The ore addition might now only correspond to the quantity of reducing agents which must be eliminated at the same time as the phosphorus. For a pig iron with 0*6 per cent. Si, 2 per cent. Mn, and about 1 per cent. P, there is necessary for

0-6 Si (vide 63)	0-6x7'G2	= 4-6 per cent. Feo08
2-0 Mnf „	65)2-0x0-97	= 1-9
1-0 P („	64) 1-0x7-80	= 7-8 „
Or a total of . .		14-3 per cent. Pe2O8

And if again 5 per cent. Si02 in the ore is admitted, "the ore requirement is TT^T^ 15*0 per cent, which brings into the